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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,577	12/30/2003	Ju-Kil Lee	21C-0106	8080

23413 7590 10/30/2006

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EXAMINER	
FIGUEROA, JOHN J	
ART UNIT	**PAPER NUMBER**
1712	

DATE MAILED: 10/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/748,577	LEE ET AL.	
	Examiner	Art Unit	
	John J. Figueroa	1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 October 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114 (RCE), including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on October 13, 2006 has been entered.

Applicant's arguments concerning the appropriateness of the Advisory Action of September 21, 2006 in view of Applicant's admission of the filing of an incorrect listing of claim 10 as "new" (and, thus, a filing of a amendment that is non-compliant) have been considered but have become moot due to the filing of this RCE.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter that was not described in the specification in such a way as to reasonably convey to one

skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Independent claims 1 and 5 have been amended to limit the resin composition to having an "acid value of *10* to 30 mgKOH/g." [Emphasis added.] There is insufficient support in the specification for this range of the acid value. The specification does disclose procedures for preparing a polyester in Examples 1 and 2 that include an intermediate step which concludes when "the acid value is 10 mgKOH/g or less" followed by other subsequent procedural steps. However, the specification does not expressly disclose the recited range in independent claims 1 and 5 for the acid value of the resin, or an example of a polyester resin having a *resultant* acid value of 10 mgKOH/g.

Accordingly, independent claims 1 and 5, as amended, and claims 2-4 and 6-12 that depend therefrom, contain new matter and, thus, are not enabled by the specification.

4. Claim 11 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

New claim 11 limits the resin composition of claim 1 to having an "acid value of *13* to 30 mgKOH/g." [Emphasis added.] There is insufficient support in the specification for this range of the acid value. Although the specification does disclose a polyester

resin intermediate having a *hydroxyl* value of 13 mgKOH/g (Example 1 on page 9, lines 21-24), it does not disclose the recited range for the *acid* value of the resin, or an example of a polyester resin having an acid value of 13 mgKOH/g.

Therefore, new claim 11 contains new matter and, thus, is not enabled by the specification.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-11 are rejected under 35 U.S.C. 102(e) as being anticipated by US 2004/0044117 A1 to Kiefer-Liptak et al. (hereinafter 'Keifer-Liptak').

Kiefer-Liptak discloses preparing a polyester from ethylene glycol and terephthalic acid that is subsequently reacted with maleic anhydride (Example 1). It is the examiner's position that this intermediate contains groups of formula (1) because the polyester in Kiefer-Liptak has been reacted with maleic anhydride. In Example 3, Kiefer-Liptak discloses several acryl monomers, including butyl acrylate, that are reacted with this polyester intermediate.

Kiefer-Liptak discloses this reaction to be performed at, e.g., 125°C and 138°C (paragraphs [0034] and [0038], respectively) and using di-t-butyl peroxide as an initiator (Example 4). In paragraph [0008], Kiefer-Liptak discloses the polyester having molecular weights (4,000 to 20,000), hydroxyl values (0 to 200 KOH/g resin), and acid values (less than *about* 10 KOH/g resin) that are within or significantly overlap with the ranges recited in the instant claims.

Particularly, Keifer-Liptak discloses styrene as an example of an acryl monomer that can be used to form the acryl copolymer (page 2, paragraphs #0013 and #0018). Keifer-Liptak also discloses an acrylic-polyester resin copolymer composition in Example 3 that is formed from the polymerization of a previously prepared polyester, styrene and other acryl monomers, such as butyl acrylate, methacrylic acid and methyl methacrylate (page 4, paragraphs [0033], [0034], [0037] and [0038]).

Keifer-Liptak further discloses that the acrylic copolymer may be combined with the polyester in various processes, such as without phase separation by blending to form a homogeneous product, by forming interpenetrating polymeric networks, by graft polymerization via the addition of acrylic monomers to a previously prepared polyester followed by polymerization or, alternatively, by grafting the polyester onto an already-made acrylate copolymer. (Page 2, paragraphs #0014 to #0018) Consequently, Keifer-Liptak is disclosing a product "produced by a polymerization of a polyester resin and an acryl monomer."

Moreover, independent claim 1 of the instant application is drawn to an "acryl-modified polyester resin composition produced by a polymerization of a polyester resin

intermediate of formula (1) and an acryl monomer" having a recited formula and limited hydroxyl/acid values. Thus, the composition/process limitations recited in independent claims 1 and 5 must inherently read on the composition/process described in, e.g., Example 3 of Keifer-Liptak, discussed above.

Thus, the claims are anticipated by Keifer-Liptak.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent Number (USPN) 4,751,267 to Berghoff (hereinafter 'Berghoff'); JPO Abstract of JP 63309533 A to Miura et al. (hereinafter 'Miura'); or JPO Abstract of JP 2000108286 A to Yano et al. (hereinafter 'Yano'), either in view of Keifer-Liptak.

Berghoff, Miura and Yano disclose paint films comprising a polymer composition formed from a blend of an acrylic polymer, a polyester and a crosslinking agent/peroxide initiator. (*See*, Berghoff, claims 1 and 21, teaching a pigmented composition formed from an acrylic copolymer, a polyester polymer and a crosslinking agent; Miura, teaching a paint film based on an acryl/polyester resin; and Yano, teaching a paint film composite comprising an acrylic modified polyester.

However, neither Berghoff, Miura nor Yano disclose the acryl/polyester resin to have the physical properties recited in the instant claims.

Keifer-Liptak was discussed above in paragraph #6. Keifer-Liptak further discloses the acryl/polyester resin composition to be excellent for coating the interior of a can because it performs well regarding flexibility and acid resistance, thus retarding or inhibiting corrosion of the metal preventing contamination of the can's inner contents.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time that the claimed invention was made to use Keifer-Liptak's acryl/polyester resin composition as the acryl-modified polyester component in either Berghoff, Miura or Yano's paint film resin composition. It would have been obvious to one skilled in the art to do so to attain a mechanically enhanced resultant can having a paint film coating that is more durable and acid resistant, thus preventing corrosion and contamination of its interior contents as taught by Keifer-Liptak.

Although physical properties recited in the claims for the paint film composition/polymer may not be specifically taught in Keifer-Liptak and Berghoff, Miura or Yano, because the paint compositions/polymers taught by Keifer-Liptak and Berghoff, Miura or Yano are encompassed by the paint composition/polymer of the instant claims, then both sets of compositions must possess the same physical properties, such as pencil hardness.

Thus the claims are unpatentable over Keifer-Liptak and either Berghoff, Miura or Yano.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Figueroa whose telephone number is (571) 272-8916. The examiner can normally be reached on Mon-Thurs & alt. Fri 8:00-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JJF/RAG

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